WHAT IS CLAIMED IS:

1. A manufacturing method of a semiconductor device, comprising the steps of:

transmitting a process condition of a product wafer from a host computer to a semiconductor manufacturing apparatus;

automatically processing a dummy wafer in said semiconductor manufacturing apparatus in accordance with a predetermined process condition; and

processing said product wafer in said semiconductor manufacturing apparatus in accordance with said transmitted process condition of the product wafer.

2. The manufacturing method of a semiconductor device according to claim 1, further comprising, during or after said process of the product wafer, the steps of:

measuring a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said semiconductor manufacturing apparatus;

transmitting the data of said measured film thickness and the process data of said semiconductor manufacturing apparatus to said host computer; and

determining in said host computer the process condition of a product wafer processed later in said semiconductor manufacturing apparatus based on said transmitted film thickness data and process data.

3. The manufacturing method of a semiconductor device according to claim 1, further comprising, during or after said process of the product wafer, the steps of:

measuring a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said semiconductor manufacturing apparatus;

transmitting the data of said measured film thickness to said host computer; and

determining in said host computer the process condition of said product wafer in the subsequent process based on said transmitted film thickness data.

4. The manufacturing method of a semiconductor device according to claim 2, further comprising the step of:

determining in said host computer the process condition of said product wafer in the subsequent process based on said transmitted film thickness data.

5. An automatic operation method of semiconductor manufacturing apparatus, comprising the steps of:

transmitting a process condition of a product wafer from a host computer to a semiconductor manufacturing apparatus;

automatically processing a dummy wafer in said semiconductor manufacturing apparatus in accordance with a predetermined process condition; and

processing said product wafer in said semiconductor manufacturing apparatus in accordance with said transmitted process condition of the product wafer.

6. The automatic operation method of semiconductor manufacturing apparatus according to claim 5, further comprising, during or after said process of the product wafer,

the steps of:

measuring a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said semiconductor manufacturing apparatus;

transmitting the data of said measured film thickness and the process data of said semiconductor manufacturing apparatus to said host computer; and

determining in said host computer the process condition of a product wafer processed later in said semiconductor manufacturing apparatus based on said transmitted film thickness data and process data.

7. The automatic operation method of semiconductor manufacturing apparatus according to claim 5, further comprising, during or after said process of the product wafer, the steps of:

measuring a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said semiconductor manufacturing apparatus;

transmitting the data of said measured film thickness to said host computer; and

determining in said host computer the process condition of said product wafer in the subsequent process based on said transmitted film thickness data.

8. The automatic operation method of semiconductor manufacturing apparatus according to claim 6, further comprising the step of:

determining in said host computer the process condition

of said product wafer in the subsequent process based on said transmitted film thickness data.

9. An automatic operation method of CMP (Chemical Mechanical Polishing) apparatus, comprising the steps of:

transmitting a process condition of a product wafer from a host computer to a CMP apparatus;

automatically processing a dummy wafer in said CMP apparatus in accordance with a predetermined process condition; and

processing said product wafer in said CMP apparatus in accordance with said transmitted process condition of the product wafer.

10. The automatic operation method of CMP apparatus according to claim 9, further comprising, during or after said process of the product wafer, the steps of:

measuring a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said CMP apparatus;

transmitting the data of said measured film thickness and the process data of said CMP apparatus to said host computer; and

determining in said host computer a polishing time of a product wafer processed later in said CMP apparatus based on said transmitted film thickness data and process data.

11. The automatic operation method of CMP apparatus according to claim 9, further comprising, during or after said process of

the product wafer, the steps of:

measuring a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said CMP apparatus;

transmitting the data of said measured film thickness to said host computer; and

determining in said host computer the process condition of said product wafer in the subsequent process based on said transmitted film thickness data.

12. The automatic operation method of CMP apparatus according to claim 10, further comprising the step of:

determining in said host computer the process condition of said product wafer in the subsequent process based on said transmitted film thickness data.

13. An automatic operation system of semiconductor manufacturing apparatus, comprising:

a host computer to store a process condition of a product wafer; and

an apparatus control unit to control the semiconductor manufacturing apparatus,

wherein said apparatus control unit automatically processes a dummy wafer in said semiconductor manufacturing apparatus in accordance with a predetermined process condition when the process condition of said product wafer is transmitted from said host computer to said semiconductor manufacturing apparatus, and then, said apparatus control unit processes said product wafer in said semiconductor manufacturing apparatus in

accordance with said transmitted process condition of the product wafer.

14. The automatic operation system of semiconductor manufacturing apparatus according to claim 13,

wherein, during or after said process of the product wafer, said apparatus control unit measures a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said semiconductor manufacturing apparatus and also transmits said measured thickness data and the process data of said semiconductor manufacturing apparatus to said host computer, and

said host computer determines the process condition of a product wafer processed later in said semiconductor manufacturing apparatus based on said transmitted film thickness data and process data.

15. The automatic operation system of semiconductor manufacturing apparatus according to claim 13,

wherein, during or after said process of the product wafer, said apparatus control unit measures a thickness of a film formed on said product wafer by a film thickness measuring device mounted to said semiconductor manufacturing apparatus and also transmits said measured thickness data to said host computer, and

said host computer determines the process condition of said product wafer in the subsequent process based on said transmitted film thickness data.

16. The automatic operation system of semiconductor manufacturing apparatus according to claim 13,

wherein said host computer and said apparatus control unit are connected via a network, and said process condition of the product wafer in said host computer can be changed from a terminal connected to said network and provided outside a clean room.

17. The automatic operation method of CMP apparatus according to claim 9,

wherein said CMP apparatus has a shelf-management function by which a plurality of said dummy wafers stored in said CMP apparatus are sequentially processed and also a utilization management function by which said dummy wafers are replaced when they are processed predetermined times.